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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/695,849	10/29/2003	Jcrome David	SPINE 3.0-414	7827
530 7590 10/30/2007 LERNER, DAVID, LITTENBERG, KRUMHOLZ & MENTLIK 600 SOUTH AVENUE WEST WESTFIELD, NJ 07090			EXAMINER SWIGER III, JAMES L	
			ART UNIT 3733	PAPER NUMBER
			MAIL DATE 10/30/2007	DELIVERY MODE PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/695,849	Applicant(s) DAVID, JEROME	
	Examiner James L. Swiger	Art Unit 3733	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 8/2/2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-31 and 39-42 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-31 and 39-42 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 29 October 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date <u>1019/2007</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

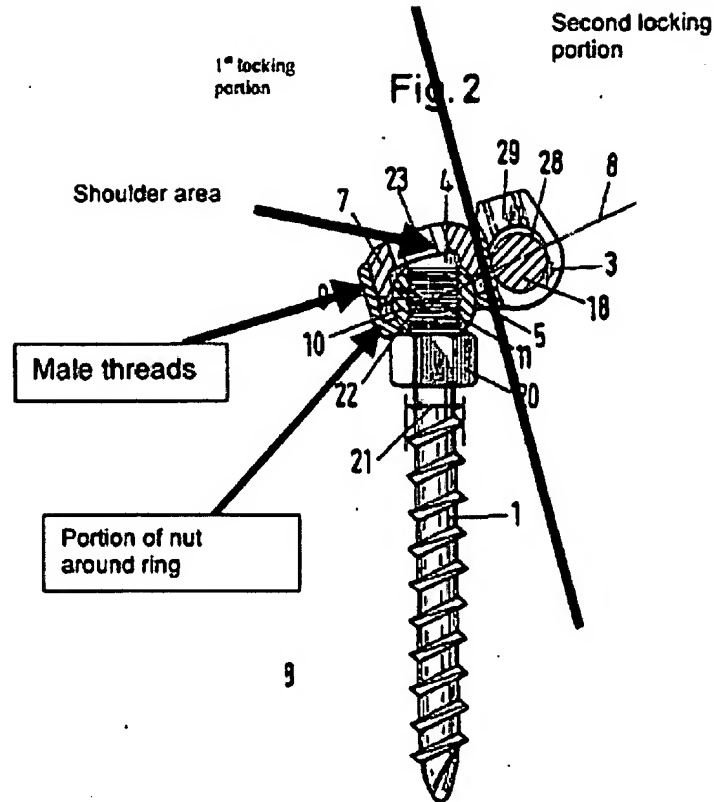
A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 8/2/2007 has been entered.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-5, 7-18, 19-31, and 39-42 are rejected under 35 U.S.C. 103(a) as being unpatentable over Studer et al. (US 6,146,383) in view of Young (US Patent 6,626,906). Studer et al. discloses a bone fixation assembly comprising what is considered a unitary coupling element (see element in Fig. 2) that permits axial and sliding movement (9) of the coupling element (1) relative to the fixation element (Figs. 1 vs. 2), and that is also adapted to receive a spinal rod (18). The bone fixation assembly also has a first locking element to secure the head portion in the first bore and a second locking element adapted to secure the spinal rod in the second bore. See drawing below.



The coupling element also comprises a locking nut (7) in the first portion, and where the first locking element comprises a ball ring (9). The second bore via the spinal rod would therefore also have an axis that is transverse to the first bore, extending coplanar in the transverse direction. Further, once the second locking element (through bore 29, and would be considered as a set screw (24)) is set into the device, it is capable of being permanent if the user chooses it to be, and would be fully secure in the connection and stabilizing the spinal rod in place. The device further comprises male threads in the first bore (see drawing above) and wherein at least a portion of the locking nut surrounds the ball ring. The male threads would inherently fit into the female threads provided on the side of the first bore. The ball ring (9) is also in contact with the coupling member portion (5) at the bottom end of the ring, and the locking nut (7) at the

top. The second locking assembly also comprises a set screw (24) that is capable of being seated in the locking member if the user wishes it to be. Also, the bottom portion of the ball ring (9) is tapered (see bottom portion of the first locking element in drawing above) to allow poly-axial motion. See also Fig. 20, XXII for this tapered portion.

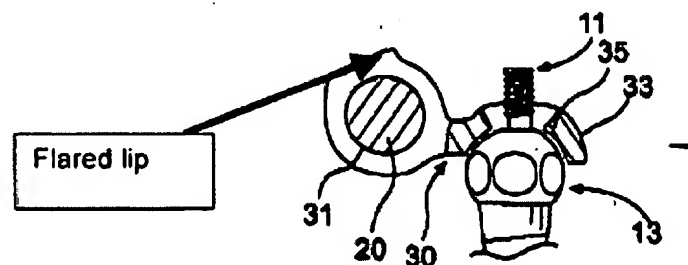
The fixation element also has a head portion (proximate to 22) that fits into the first locking element. Further, the ball ring and the locking nut associate with each other and with the head portion of the fixation element that is capable of exerting a radial force onto that element to secure the head of the screw in the coupling element. The set screw (24) or locking nut (7) may provide this means for providing radial forces.

Studer et al. disclose the claimed invention except for a coupling element that has a fixation element that is capable of not only axial movement, but also linear movement, allowing the fastener/locking element to slide up and down, and thus also allowing a first locking element to be a means of securing the head of the fastener at any point along the length of the head portion. Young et al. disclose a connecting fixation device that teaches a head portion of a fixation screw (8) that can move up and down linearly and wherein it may be fixated anywhere along this portion (see Fig. 6, and Col. 2, lines 31-42). It would have been obvious to one having ordinary skill in the art at the time the invention was made to construct the fixation device of Studer et al. having at least the linear movement capability of Young to better fix the screw, for example, when a deeper fixation into the vertebrae is required.

Claim 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over Studer et

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al. '383 and Young as applied to claim 1 above and further in view of Gu et al. (US 6,280,443). Studer et al. and Young disclose the claimed invention except for a flared lip that cooperates with the coupling element. Gu et al. disclose a taper (see drawing below) that allows for the set member bore (32) to better secure to the rod (Col. 4, lines 42-58).

**FIG. 4A**

It would have been obvious to one having ordinary skill in the art at the time the invention was made to construct the spinal fixation device of Studer et al. and Young having at least a flared lip in view of Gu et al. to better secure the locking element and the rod in place and prevent the locking element from becoming removed.

Response to Arguments

Applicant's arguments with respect to claim 1-31 and 39-42 have been considered but are moot in view of the new ground(s) of rejection. With respect to the previous arguments, Studer et al. is now modified to distinguish the sliding movement, as obvious with respect to the prior art as rejected above.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. See PTO-892.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to James L. Swiger whose telephone number is 571-272-5557. The examiner can normally be reached on Monday through Friday, 9:00am to 5:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Eduardo Robert can be reached on 571-272-4719. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



JLS

10/19/07



EDUARDO ROBERT
SUPERVISORY PATENT EXAMINER